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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,942	04/12/2001	Lawrence J. Mann	56319USA3A	3232
32692	7590	04/20/2004	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			SALVATORE, LYNDA	
			ART UNIT	PAPER NUMBER

1771

DATE MAILED: 04/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/833,942

**Applicant(s)**

MANN ET AL.

**Examiner**

Lynda M Salvatore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 23-26, 28-33, 35-37 and 48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 23-26, 28-33, 35-37 and 48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION*****Response to Amendment***

1. Applicant's amendment and accompanying remarks filed 1/23/04 have been fully considered and entered. Claims 23, 25, 31 and 48 have been amended as requested. Applicant's arguments regarding the rejection of claims 23-26,28,29,31-33, 35 and 36 rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tintelnot, US 2001/0041529 A1 as set forth in section 3 of the last Office Action and the rejections of claims 30,37, and 48 rejected under 35 U.S.C. 103(a) as being unpatentable over Tintelnot, US 2001/0041529 A1 as set forth in section 5 of the last Office Action have been fully considered but are moot of the new grounds of rejection set forth herein below.

***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 23-26,28,29,31-33, 35,36 and 48 are rejected under 35 U.S.C. 103(a) as obvious over Yamato, US 6,528,154 in view of Lise et al., US 6,406,504.

Applicant amended claim 23 to recite that the binder comprises at least one of nitrile rubber, styrene-butadiene rubber or polyisoprene and argues that the prior art reference of Tintelnot does not teach such a binder composition. As previously set forth above these Applicant's amendments have been found sufficient to overcome the prior art of Tintelnot. However, the patent issued to Yamato teaches adhering synthetic rubber particles to the surface of a foam substrate through an adhesive layer (Column 1, 50-55 and Column 2, 5-10). Suitable

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rubber particle forming materials include styrene butadiene rubber (Column 2, 22-25). In one embodiment Yamato explicitly teaches coating the surface of a rubber sponge with a binder and then a silicone resin having an average particle size of 4.5 microns (Column 3, 1-9). Thus, it is the position that Yamato teaches all of the structural and chemical limitations of the instant invention.

Although, Yamato does not explicitly teach the Shore A hardness range of the rubber particles as set forth in claims 23,25,31, and 48 it is reasonable to presume that said properties are inherent to the invention of the styrene butadiene particles of Yamato. Support for said presumption is found in the use of like materials such as the butadiene rubber particles affixed to the surface of a foam substrate. The burden is upon the Applicant to prove otherwise.

With regard to the limitation particle diameter or length in range of about .05mm to 4mm as set forth in claim 48, it would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the aspect ratio and particle size to provide the desired frictional properties. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233

Yamato fails to teach the claimed binder composition, however, the patent issued to Lise et al., teaches a abrasive article comprising an abrasive particle coated foam substrate Abstract and Column 3, 51-55). Lise et al., teaches using a flexible precursor make coat to the foam substrate to adhesively bond the abrasive particles (Column 5, 30-35). Suitable precursor make coating compositions include the claimed nitrile rubber (Column 5, 30-35).

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Although, Lise et al, does not explicitly teach the glass transition range as set forth in claims 23,28,29,35,36 and 48 it is reasonable to presume that said property is inherent to the nitrile rubber precursor make coat of Lise et al. Support for said presumption is found in the use of like materials such as the claimed nitrile rubber coating used to adhere the abrasive particles to the surface of a foam substrate. The burden is upon the Applicant to prove otherwise.

Therefore it would have been obvious to one having ordinary skill in the art to adhere the styrene butadiene rubber particles of Yamato with the nitrile rubber make coat of Lise et al., to provide a flexible abrasive article. Motivation to specifically form a flexible abrasive article is found in the teachings of Yamato wherein the invention is directed to providing a makeup-sponge puff suitable for use on the skin surface. As such, having such a flexible abrasive article would be highly desirable.

***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 30 and 37 rejected under 35 U.S.C. 103(a) as being unpatentable over Yamato, US 6,528,154 in view of Lise et al., US 6,406,504 as applied to claims 23, and 31.

With regard to the limitation of an aspect ratio range of 1:1 to about 2:1 and particle diameter or length in range of about .05mm to 4mm as set forth in the above aforementioned claims, it would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the aspect ratio and particle size to provide the desired frictional properties. It has been held that where the general conditions of a claim are disclosed in the prior

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art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*,  
105 USPQ 233

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 571-272-1482. The examiner can normally be reached on M-F.

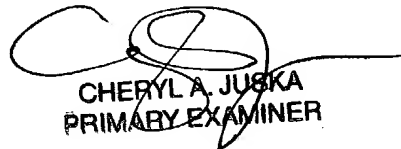
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1482. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

March 25, 2004

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CHERYL A. JUSKA  
PRIMARY EXAMINER